



Towards a hybrid patient pathway combining in-person and remote care: understanding when and how teleconsultation is appropriate and beneficial

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Context

Major **healthcare challenges** include staff shortages, an aging population, a rise of chronic diseases, etc. (1)

→ **Growing inequalities** in access to care and a perceived decline in care quality (Sun and Li 2023; Khan, Addo, and Findlay 2024)

Ongoing **transformation of the healthcare sector** through digitalization, particularly with the rise of teleconsultation (Wosik et al. 2020; Ronchi et al. 2023)

→ **Teleconsultation as a key digital solution?**

When is teleconsultation appropriate and beneficial, and how can it be better integrated into patient care pathways?



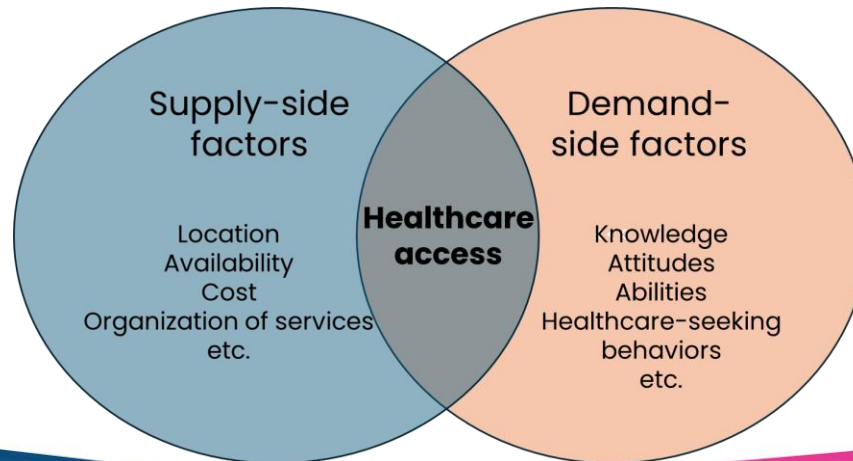
(1) L'Europe peine à maintenir ses systèmes de santé à flot - Health Policy Watch

Theoretical approaches to access to healthcare

Access to healthcare: a multidimensional concept

➤ Access is “the ability to receive the right care, from the right professional, at the right time and place.” (Saurman 2016, p.36)

↪ Results from a **dynamic interaction** between supply and demand. (Mooney 1983)



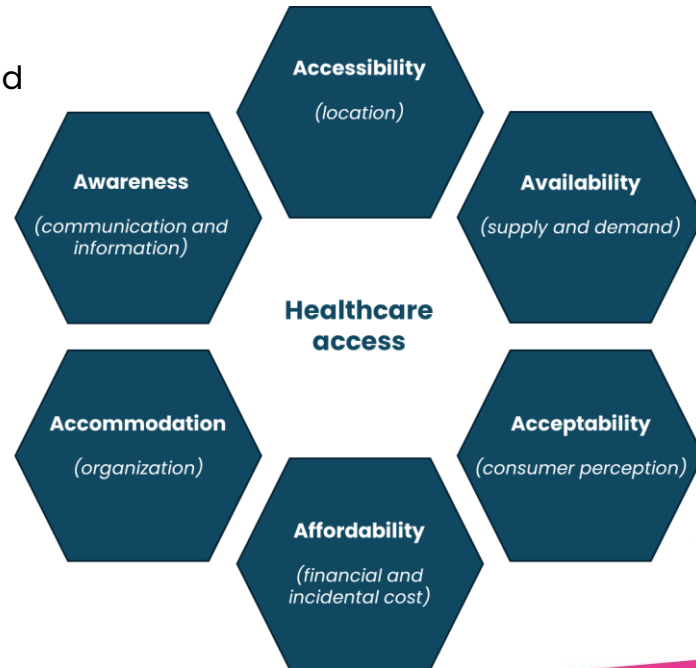
Author's own figure — Conceptualization of healthcare access as the result of interactions between supply-side and demand-side factors, based on Mooney (1983) and Levesque, Harris, and Russell (2013)

Theoretical approaches to access to healthcare

The "six A's" framework of healthcare access

- Overview of the barriers and facilitators that shape access

(Penchansky and Thomas 1981; Saurman 2016)

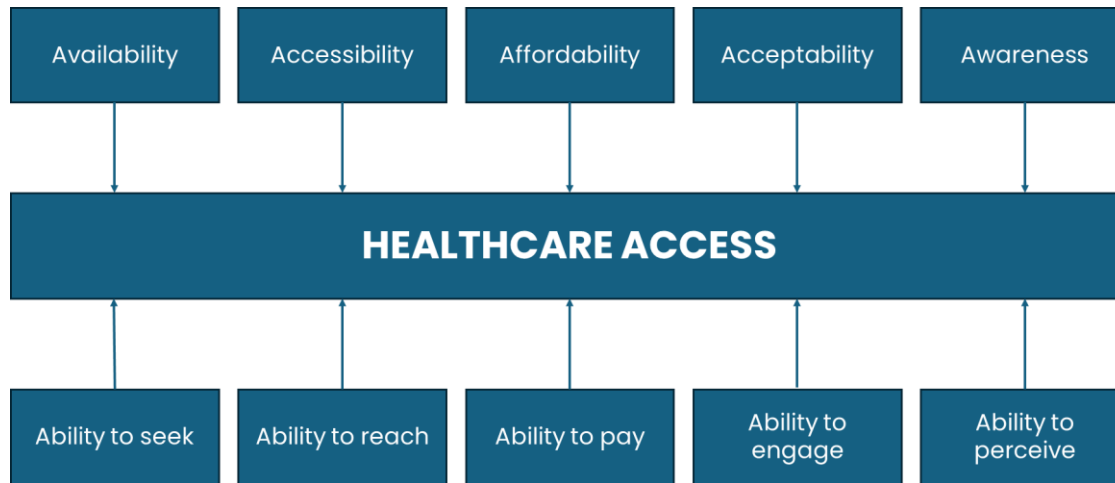


Adapted from Penchansky and Thomas (1981) and Saurman (2016); author's own illustration.

Theoretical approaches to access to healthcare

Access also depends on patients' abilities

- Access depends not only on **service characteristics**, but also on **patients' ability** to navigate the healthcare system. (Levesque, Harris, and Russell 2013)



From access to utilization

Access is only realized when services are actually used. (Andersen 1995)

An alignment issue

Author's own adaptation of Levesque et al.'s (2013) dual-level access model.

Teleconsultation: benefits, limits, and contextual relevance

➤ Medical care is no longer limited to in-person visits, as **new care delivery formats** have emerged.

↪ Hybrid care models aim to offer **more flexible, accessible, and personalized care pathways**.
(Terrell et al. 2021; Raj Westwood 2021).



Key benefits

- 🕒 Overcomes spatial and temporal barriers (Ashwood et al. 2017)
 - 🔄 Ensures continuity of care (Peres et al. 2023)
 - 👥 Supports territorial coordination (Habib, Yatim, and Jihane 2019)
 - 📈 Fosters patient empowerment (Cheng et al. 2021)
- ↪ Used in various clinical contexts (Ohanessian 2015)

Limitations and challenges

- 📉 Limited adoption and low retention (Vidal and Le Hir 2023)
- 🚫 Barriers: technical, relational, organizational (de Camargo Catapan and Calvo 2020)
- 👤 Not a universally suitable practice (Carrillo de Albornoz, Sia, and Harris 2022)

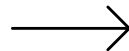


A situational approach is needed to determine when teleconsultation is feasible, appropriate, or preferable – and when in-person care remains essential.

The need for adopting a situational perspective

- Implementing hybrid and blended care raises **challenges** in terms of feasibility, coordination, and adaptation to individual needs. (Bhadola et al. 2022)
 - The choice of consultation modality should reflect each patient's clinical situation, abilities, preferences and evolving context.
 - **Adaptability and flexibility** are essential to ensure relevance and quality of care. (Wentzel et al. 2016)
- ↪ **Contingency theory:** the effectiveness of an organizational model depends on its ability to adapt to the characteristics of its environment. (Donaldson 2001)

From a standardized approach



to a contextual and patient-centered logic



This approach aligns with **a holistic vision of health management** that promotes health at all levels and supports flexible, inclusive, and resource-efficient policies.

(Valiotis et al. 2025)

-study conducted by the European Health Management Association-

Teleconsultation: from general promise to context-sensitive practice

- Teleconsultation's effectiveness remains uncertain, as it is not appropriate for everyone. (Carrillo de Albornoz, Sia, and Harris 2022)
- Clinical appropriateness has been explored (safety/effectiveness). (Sitter et al. 2022)
- ⚠ But the lack of standardized protocols results in heterogeneous practices and individual decision-making. (Pullyblank et al. 2023)
 - Patients need to be guided toward the right care medium. (Sundar 2021)

How can we determine the right mode of consultation for a given situation, in order to ensure truly appropriate and context-sensitive access to care?

➤➤➤ Research aim: to identify the factors that make teleconsultation feasible, relevant, or preferable.

Methods

🗨️ **Qualitative study: 40 semi-structured interviews**
with patients and healthcare professionals from various medical fields. Convenience sampling.

🎯 **Objective:**
To understand the factors influencing the use or avoidance of teleconsultation.

🕒 **Dual perspective:**
Combining patient and professional perspectives to identify the conditions under which teleconsultation is seen as appropriate, or not.

📊 **Data analysis:**
Thematic analysis of full transcripts using NVivo software.



Results

Stepwise model of teleconsultation appropriateness

Feasibility

Relevance

Favorability

Predisposing factors

Enabling factors

Reinforcing factors

Is teleconsultation possible?

Is teleconsultation suitable?

Is teleconsultation preferable?

- Access to a device and internet
- Nature of the medical issue
- Need for physical examination

- Quality of digital tools
- Environmental conditions
- Digital literacy
- Functional and cognitive abilities
- Prior relationship
- Clear consultation purpose

- Preferences
- Availability of in-person care
- Mobility and geographical barriers
- Personal and professional constraints
- Broader health context (e.g., pandemic)

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Illustrative quotes from interviews

What shapes feasibility?



Nature of the medical issue

"When you're dealing with very specific situations. A toothache — if there's no fever, and the cheek is swollen like this, you can see it on screen, so why not. (...) For a pill prescription renewal, in the case of a young woman who has no health problems, who doesn't smoke, and has no blood pressure issues — sure, that can work. But the situation really has to be well defined."

(General practitioner, 40, rural area)



Need for physical examination

"Treating an ear infection or abdominal pain via teleconsultation is impossible. If someone is coughing or having trouble breathing, you have to listen to their chest!"

(General practitioner, 40, rural area)

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Illustrative quotes from interviews

What shapes relevance?



Quality of digital tools

"My connection was good. I think that's a prerequisite. (...) I used a tablet, so it was easy to move around. I think it's simpler than a computer (...) being able to zoom in on a spot or something else, it's practical." (patient, 42, rural area)



Digital literacy

"If the wording on the computer is a bit too technical, those people are going to get lost (...) they already feel anxious when facing a machine, wondering which button to press, it could really cause some panic." (patient, 59, rural area)



Prior relationship

"It would've been awful: doing a teleconsultation with someone you don't know, what a nightmare. (...) A client, sure, you can treat them in one shot; but a patient, it takes time, there's a whole relationship. No, I wouldn't want to do a teleconsultation with someone I don't know." (patient, 52, urban area)

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Illustrative quotes from interviews

What shapes contextual favorability?



Preferences

"It was hard for me to take the first step and talk to someone, so I thought maybe doing it through a screen would be easier. (...) I was at home, and I felt more reassured." (patient, 23, urban area)



Availability of in-person care

"The dermatologist had a six-month waiting time [...] With teleconsultation, it was one week!" (patient, 42, rural area)



Mobility and geographical barriers

"I only do teleconsultations for patients who live too far away. (...) Someone living in Nice, I'm not going to ask them to come to Paris every two weeks, that just wouldn't make sense." (Psychologist, 47, urban area)



Personal and professional constraints

"Sometimes a parent messages me like, 'I've got a car problem or something – can we do it by video?' So we keep the same day and time but do it by video instead. (...) I have families who go away for two months in the summer (...) It helps keep things regular and avoid last-minute cancellations" (Speech therapist, 53, rural area)

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Theoretical and managerial contributions

Theoretical contributions

- ✓ Builds on and extends existing models of access (Andersen 1995; Penchansky and Thomas 1981; Levesque, Harris, and Russell 2013; Saurman 2016)
- ✓ In line with prior research on barriers and facilitators influencing the use of teleconsultation (Almathami et al. 2020; McAlearney et al. 2021; Rousset 2024)
- ✓ Contributes to research on digital health and health management (Ashwood et al. 2017; Talboom-Kamp et al. 2018; Bernardi 2023; Valiotis et al. 2025) by offering an integrated framework for contextual decision-making in hybrid care combining structural and individual factors

Theoretical and managerial contributions

Managerial implications

- ✓ Provides a **decision-support tool** for more appropriate and context-sensitive use of teleconsultation
- ✓ Encourages healthcare professionals and organizations to assess the most appropriate consultation modality based on context and to support patient autonomy in care navigation

Limitations and future research perspectives

Qualitative and exploratory nature of the research

→ Findings may have limited generalizability

» Need for **further validation** through **quantitative studies**

💡 Design of **digital triage tools** or **self-assessment systems** to help patients choose the most appropriate care modality

Conclusion

Toward a more contextual and coordinated use of teleconsultation

While teleconsultation is promising, it is not universally applicable

- Its value depends on the clinical context, patient characteristics, and care objectives.

A nuanced, context-sensitive approach is essential

- Teleconsultation must be part of integrated, hybrid care pathways, combining digital tools and professional coordination.

Collaboration and personalization enhance effectiveness

- Involving medical assistants, nurses, pharmacists, and using PROMs/PREMs helps improve the quality and relevance of remote healthcare delivery.

A cluster of colorful geometric shapes, including triangles and polygons in shades of pink, teal, and blue, positioned above the "THANK YOU" text.

THANK YOU

For more information,
feel free to reach out !

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